

CLAIMS

I claim:

1. A skylight assembly for integration into a standing seam roof, said standing seam roof having a plurality of roof panels and a plurality of standing seams, said plurality of standing seams each connecting adjoining said plurality of roof panels, said skylight assembly comprising:

- a skylight frame including an upper end, a first side, a lower end and a second side;

- a skylight curb vertically extending from said skylight frame along said upper end, said first side, said lower end and said second side;

- said skylight curb having an inner periphery;

- a skylight panel housed in said inner periphery;

- a first roof panel;

- said first roof panel having an outer connector, a first panel surface and a first panel curb;

- said first panel surface intermediate said outer connector and said first panel curb;

- said first panel curb extending vertically from said first panel surface distal said outer connector;

- said first panel curb interlocking within said skylight curb along said first side;

- a second roof panel;

- said second roof panel having an inner connector, a second panel surface and a second panel curb;

said second panel surface intermediate said inner connector and said second panel curb;

said second panel curb extending vertically from said second panel surface distal said inner connector;

said second panel curb interlocking within said skylight curb along said second side;

a top end piece having a top end curb;

said top end curb interlocking within said skylight curb along said skylight upper end;

a bottom end piece having a bottom end curb;

said bottom end curb interlocking within said skylight curb along said skylight lower end;

said first roof panel and said second roof panel each overlapping said bottom end piece; and

said inner connector and said outer connector connecting to said adjacent roof panels.

2. The skylight assembly of claim 1, wherein said skylight curb further comprises:

a side member extending upward from said skylight frame;

said side member encompassing said inner periphery of said skylight curb;

a top member extending from said side member away from said inner periphery; and

a skylight curb lip extending downward from said top member.

3. The skylight assembly of claim 2, further comprising:

said first panel curb including a first panel curb side extending upward from said first panel surface and a first panel curb lip extending from said first panel curb side and overhanging said first panel surface; and

said second panel curb including a second panel curb side extending upward from said second panel surface and a second panel curb lip extending from said second panel curb side and overhanging said second panel surface.

4. The skylight assembly of claim 3, further comprising:

insulation intermediate said first panel curb side and said side member along said first side;

insulation intermediate said second panel curb side and said side member along said second side;

insulation intermediate said top end curb and said side member along said upper end;
and

insulation intermediate said bottom end curb and said side member along said lower end.

5. The skylight assembly of claim 4, further comprising:

a water diverter attached to said top end piece.

6. The skylight assembly of claim 5, further comprising:

said skylight assembly traversing at least one standing seam, each of said at least one standing seam including a seam end;

at least one notch cut into a lower edge of said lower end piece;

said at least one notch fitting around a seam end of an adjacently located said at least one standing seam;

at least one cap connected to said lower edge of said lower end piece; and

each of said at least one cap covering each of said at least one notch and each said seam end.

7. The skylight assembly of claim 6, wherein said first roof panel and said second roof panel are selected from said plurality of roof panels.

8. The skylight assembly of claim 7, wherein said roof panels have been painted a selected color, said skylight assembly further comprising:

said first and second roof panels having been simultaneously painted said selected color;

said top end piece having been simultaneously painted said selected color; and

said bottom end piece having been simultaneously painted said selected color.

9. The skylight assembly of claim 1, wherein said plurality of roof panels each have a panel width intermediate each of said plurality of standing seams, said skylight assembly further comprising:

a skylight assembly width intermediate said inner connector and said outer connector; and

said skylight assembly width being greater than said panel width.

10. A skylight assembly for integration into a standing seam roof, said standing seam roof having a plurality of roof panels and a plurality of standing seams, said plurality of standing seams each connecting adjoining said plurality of roof panels, said skylight assembly comprising:

a skylight frame;

a skylight curb comprising a side member, a top member and a skylight curb lip;

said side member vertically extending from said skylight frame;
 said top member extending outwardly from said side member;
 said skylight curb lip extending downwardly from said top member;
 a skylight panel housed within said skylight frame;
 a first roof panel having an outer connector and a first panel curb;
 said first panel curb having a first panel curb side and a first panel curb lip;
 said first panel curb side extending vertically from said first roof panel;
 said first panel curb lip extending from said first panel curb side toward said outer
 connector;
 said first panel curb interlocking within said skylight curb;
 insulation intermediate said first panel curb side and said skylight curb;
 a second roof panel having an inner connector and a second panel curb;
 said second panel curb having a second panel curb side and a second panel curb lip;
 said second panel curb side extending vertically from said second roof panel;
 said second panel curb lip extending from said second panel curb side toward said
 inner connector;
 said second panel curb interlocking within said skylight curb;
 insulation intermediate said second panel curb side and said skylight curb;
 a top end piece having a top end curb;
 said top end curb interlocking within said skylight curb;
 insulation intermediate said top end curb and said skylight curb;
 a bottom end piece having a bottom end curb;

said bottom end curb interlocking within said skylight curb;
insulation intermediate said bottom end curb and said skylight curb; and
said inner connector and said outer connector connecting said skylight assembly with
said adjacent roof panels.

11. The skylight assembly of claim 10, further comprising:

a water diverter attached to said top end piece.

12. The skylight assembly of claim 11, further comprising:

said skylight assembly traversing at least one standing seam, each of said at least one
standing seam including a seam end;

at least one notch cut into a lower edge of said skylight assembly;

said at least one notch fitting around a seam end of an adjacently located said at least
one standing seam;

at least one cap connected to said lower edge of said skylight assembly; and

each of said at least one cap covering each of said at least one notch and each said
seam end.

13. The skylight assembly of claim 12, wherein said first roof panel and said second roof
panel are selected from said plurality of roof panels.

14. The skylight assembly of claim 13, wherein said plurality of roof panels have been
painted a selected color, and said first roof panel, said second roof panel, said top end piece
and said bottom end piece having been simultaneously painted said selected color.

15. The skylight assembly of claim 10, wherein said plurality of roof panels each have a panel width intermediate each of said plurality of standing seams, said skylight assembly further comprising:

a skylight assembly width intermediate said inner connector and said outer connector;

and

said skylight assembly width being greater than said panel width.

16. A method for making and installing a skylight assembly for a standing seam roof, said standing seam roof having a plurality of roof panels, each of said plurality of roof panels having a typical panel surface intermediate two typical panel attachment members, said plurality of roof panels adjoined by a plurality of standing seams, each of said plurality of standing seams comprising the interconnection of said typical panel attachment members, said method comprising:

a constructing step wherein a skylight frame is constructed to include a skylight curb;

a first modifying step wherein a first roof panel is modified to remove one typical panel attachment member and form a first panel curb to interlock with a skylight curb first side;

a second modifying step wherein a second roof panel is modified to remove one typical panel attachment member and form a second panel curb to interlock with a skylight curb second side;

a first fabricating step wherein a top end curb is fabricated from a top end piece to interlock with a skylight curb upper end;

a second fabricating step wherein a bottom end curb is fabricated from a bottom end piece to interlock with a skylight curb lower end;

a first assembling step wherein said first panel curb is interlocked with said skylight curb;

a second assembling step wherein said second panel curb is interlocked with said skylight curb;

a third assembling step wherein said top end curb is interlocked with said skylight curb;

a fourth assembling step wherein said bottom end curb is interlocked with said skylight curb;

an integrating step wherein said first roof panel and said second roof panel are interlocked with a plurality of adjacent typical roof panels; and

an inserting step wherein a skylight panel is inserted into said skylight frame.

17. The method of claim 16, wherein said constructing step further comprises:

an acquiring step wherein at least one sheet of material is acquired, said at least one sheet of material being metal;

a sizing step wherein said at least one sheet of material is sized to produce a first side member, a second side member, an upper end member and a lower end member;

a first folding step wherein said first side member is folded to form a first frame curb side and a first frame ledge, said first frame curb side having an upper first end and a lower first end;

a second folding step wherein said first frame curb side is folded to form a first frame top parallel to and overhanging said first frame ledge;

a third folding step wherein said first frame top is folded to form a first frame lip extending toward said first frame ledge;

a fourth folding step wherein said second side member is folded to form a second frame curb side and a second frame ledge, said second frame curb side having an upper second end and a lower second end;

a fifth folding step wherein said second frame curb side is folded to form a second frame top parallel to and overhanging said second frame ledge;

a sixth folding step wherein said second frame top is folded to form a second frame lip extending toward said second frame ledge;

a seventh folding step wherein said upper end member is folded to form an upper frame curb side and an upper frame ledge;

an eighth folding step wherein said upper frame curb side is folded to form an upper frame top parallel to and overhanging said upper frame ledge;

a ninth folding step wherein said upper frame top is folded to form an upper frame lip extending toward said upper frame ledge;

a tenth folding step wherein said lower end member is folded to form a lower frame curb side and a lower frame ledge;

an eleventh folding step wherein said lower frame curb side is folded to form a lower frame top parallel to and overhanging said lower frame ledge;

a twelfth folding step wherein said lower frame top is folded to form a lower frame lip extending toward said lower frame ledge;

a first fastening step wherein said upper frame curb side is fastened into said skylight curb intermediate said upper first end and said upper second end; and

a second fastening step wherein said lower frame curb side is fastened into said skylight curb intermediate said lower first end and said lower second end.

18. The method of claim 17, wherein each of said first and second modifying steps further comprise:

a selecting step wherein said first roof panel and said second roof panel are selected from said plurality of roof panels;

a seam-removing step wherein a panel attachment member is removed from each of said first roof panel and said second roof panel leaving a first frame interface edge and a second frame interface edge;

a cutting step wherein a first slit and a second slit are cut in said first roof panel from said first frame interface edge and a third slit and a fourth slit are cut in said second roof panel from said second frame interface edge;

a first bending step wherein said first roof panel is bent between said first and second slits to form a first panel curb side;

a second bending step wherein said first panel curb side is bent to form a first panel curb lip overhanging a first panel surface;

a third bending step wherein said second roof panel is bent between said third and fourth slits to form a second panel curb side; and

a fourth bending step wherein said second panel curb side is bent to form a second panel curb lip overhanging a right panel surface.

19. The method of claim 18 wherein each of said first and second fabricating steps further comprise:

a procuring step wherein a plurality of sheets of roofing material are procured;

a first forming step wherein a top curb side wall is formed in said top end piece perpendicular to a top panel surface;

a second forming step wherein a top curb lip is formed in said top curb side wall parallel to and overhanging said top panel surface;

a third forming step wherein a bottom curb side wall is formed in said bottom end piece perpendicular to a bottom panel surface; and

a fourth forming step wherein a bottom curb lip is formed in said bottom curb side wall parallel to and overhanging said bottom panel surface.

20. The method of claim 19, further comprising:

an attaching step wherein a water diverter is attached to said top panel surface.

21. The method of claim 20, further comprising:

a first insulating step wherein insulation is placed intermediate said first panel curb side and said first frame curb side;

a second insulating step wherein said insulation is placed intermediate said top curb side wall and said upper frame curb side;

a third insulating step wherein said insulation is placed intermediate said second panel curb side and said second frame curb side; and

a fourth insulating step wherein said insulation is placed intermediate said bottom curb side wall and said lower frame curb side.

22. The method of claim 21, wherein said skylight assembly includes a lower edge, an outer connector and an inner connector, said integrating step further comprising:

a notching step wherein at least one notch is cut into said lower edge;

a placing step wherein said skylight assembly is placed into said standing seam roof, said skylight assembly traversing at least one of said plurality of standing seams, said at least one of said plurality of standing seams having a seam end;

an interlocking step wherein said outer connector and said inner connector are each interlocked with a plurality of attachment members of adjacent said typical roof panels; and

a capping step wherein said at least one notch and said seam end are covered with a cap.